

REMARKS

Claims 1-18 are pending in the current application. Claims 1, 9, 13 and 17 are independent. Claims 1, 9, 13 and 17 are amended in response to the outstanding rejections. No new matter is added.

Acknowledgement of Priority

Applicants respectfully request acknowledgement of receipt of the certified copy of Korean Patent Application 10-2003-0057210, submitted on February 27, 2004.

Allowable Subject Matter

Claims 6 and 10 are indicated as being allowable if rewritten in independent form. Claims 6 and 10, as well as the remaining independent claims are in condition for allowance for the reasons discussed below.

Claim Rejections under 35 USC §103

Claims 1-5, 7-9 and 11-16 stand rejected under 35 USC §103(a) as being unpatentable over Applicants' Admitted Prior Art (AAPA) in view of US Patent Application Publication 2004/0027997 to Terry, et al. (Terry) and US Patent Application Publication 2002/0087710 to Aiken, et al. (Aiken). The rejection is respectfully traversed.

It is admitted in the Office Action that the AAPA fails to disclose obtaining buffer-utilization information and adaptively adjusting the buffer's capacity. In an effort to overcome the admitted deficiency, it is alleged that one of ordinary skill in the art would have modified the AAPA according to the teachings of Terry.

Terry relates to a system and method which improve the performance of a wireless transmission system by intelligent use of control of the flow of data between a radio network controller (RNC) and a Node B of a third generation telecommunication system.

According to Terry, data flow between the RNC and the node of the telecommunication system is adjusted according to a capacity allocation of the buffer or buffers (paragraphs [0024]-[0025]). Thus, Terry fails to disclose or suggest adaptively adjusting a number of the buffers allocated to each of the endpoints and respective maximum buffer size allocated to each of the endpoints based upon a respective NAK count corresponding to a respective buffer.

Moreover, as Terry does not relate to a device for controlling a plurality of endpoints of a USB device, Terry fails to disclose or suggest adaptively adjusting a number of the buffers allocated to each of the endpoints of a USB device. Rather, as discussed above, Terry relates to improving the performance of a wireless transmission system in a telecommunication system.

In addition to the above deficiencies, it is further admitted that the combination of the AAPA and Terry fails to disclose or suggest adaptively

adjusting maximum buffer size allocated to each of the endpoints. It is alleged that one of skill in the art would have further modified the AAPA and Terry according to the teachings of Aiken.

Aiken relates to a software network bridge which allows connected network segments to be presented as a single network unit to a host computer. The software bridge can be implemented as an intermediate network driver or abstracting multiple network segments into a single network interface for higher level protocols and applications. The software bridge, implemented as an intermediate network driver can increase the size of the useable buffers of each network interface without increasing the overall memory consumption.

It is alleged in the Office Action that Aiken teaches adaptively adjusting respective maximum buffer capacities allocated to each of the endpoints of a USB device at paragraph [0044] of Aiken. However, the cited section of Aiken merely recites that the "intermediate network driver 120 manages the buffer storage memory by attempting to dynamically grant as much memory as possible to the interface which currently is in need of buffer space, while maintaining some amount of memory in reserve should another interface require an increase in its buffer size."

Thus, there is no teaching or suggestion of adaptively adjusting respective a maximum buffer size allocated to each of the endpoints based upon a respective NAK count corresponding to a respective buffer.

Moreover, the mere disclosure of “attempting to dynamically grant as much memory as possible to an interface which is in need of buffer space” is not a teaching of adaptively adjusting respective a maximum buffer size allocated to each of the endpoints based upon a respective NAK count corresponding to a respective buffer.

Regarding the rejection of claims 3-5 and 7, it is admitted that the combination of references fails to disclose the claimed features. However, it is alleged that “such hardware would have been obvious design choice for a person of ordinary skill in the art in light of the teachings of Terry and applicant’s admitted prior art.”

A feature can be considered obvious design choice only in cases where a rearrangement of parts that does not modify operation of the device is suggested by the prior art (MPEP §2144.04). There can be no rearrangement of parts in this case because the combination of references does not disclose or suggest the features of the rejected claims, as admitted in the Office Action. Further, the prior art must provide the motivation, without the benefit of Applicants’ specification, to make the necessary changes in the reference device (MPEP §2144.04(f)).

As the combination of references fails to disclose or suggest all of the features of the rejected claims, withdrawal of the rejection is respectfully requested.

Claims 17 and 18 stand rejected under 35 USC §103(a) as being unpatentable over the AAPA in view of Terry and Aiken and further in view of US Patent 7,003,597 to Georgiou, et al. (Georgiou). The rejection is respectfully traversed.

As discussed above the combination of the AAPA, Terry and Aiken fail to disclose or suggest, an endpoint buffer controller for managing an exchange of packets between a host and the USB device, obtaining buffer-utilization information for each of the endpoints and adaptively adjusting a number of the buffers allocated to each of the endpoints based upon a respective NAK count corresponding to a respective buffer.

Further, Georgiou fails to overcome the deficiencies of the AAPA, Terry and Aiken because Georgiou fails to disclose or suggest an endpoint buffer controller for managing an exchange of packets between a host and the USB device, obtaining buffer-utilization information for each of the endpoints and adaptively adjusting a number of the buffers allocated to each of the endpoints based upon a respective NAK count corresponding to a respective buffer, as recited in amended independent claim 17.

CONCLUSION

Accordingly, in view of the above amendments and remarks, reconsideration of the objections and rejections and allowance of each of claims 1-18 in connection with the present application is earnestly solicited.

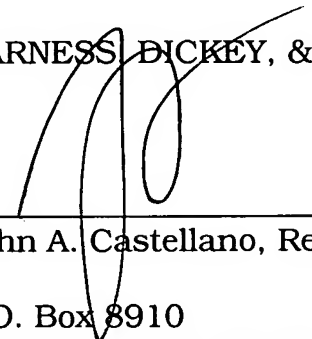
Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact John A. Castellano at the telephone number of the undersigned below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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By



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